

Environmental Profile

This LCA is calculated according to: ISO 14044, ISO 14040 and EN 15804

Ecochain v3.5.64



Product: 3067819 - SiTech+ Reducer STR TYPE A 160X110
 Unit: 1 piece
 Manufacturer: Wavin - IT - SM Maddalena

LCA standard: EN15804+A2 (2019)
 Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
 Externally verified: Yes
 Issue date: 24-11-2022
 End of validity: 24-11-2027
 Verifier: Martijn van Hövell - SGS Search



Wavin SiTech+ is a waste water system made of mineral- reinforced polypropylene (PP), which offers increased durability, but more importantly is quiet and easy to install.

This LCA was evaluated according to EN15804+A2. It was concluded that the LCA complies with this standard.

The LCA background information and project dossier have been registered in the online Ecochain application in the account Wavin - IT - SM Maddalena (2020). (☑ = module declared, MND = module not declared).

A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
☑	☑	☑	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	☑	☑	☑	☑

Product stage

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
 A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
 B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
 C4 Disposal

Benefits and loads beyond the system boundaries

D Reuse- Recovery- Recycling- potential

Environmental impacts and parameters

GWP-total = EF Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF Climate Change - Land use and LU change [kg CO2 eq]; **ODP** = EF Ozone depletion [kg CFC11 eq]; **AP** = EF Acidification [mol H+ eq]; **EP-fw** = EF Eutrophication, freshwater [kg P eq]; **EP-m** = EF Eutrophication, marine [kg N eq]; **EP-T** = EF Eutrophication, terrestrial [mol N eq]; **POCP** = EF Photochemical ozone formation [kg NMVOC eq]; **ADP-mm** = EF Resource use, minerals and metals [kg Sb eq]; **ADP-f** = EF Resource use, fossils [MJ]; **WDP** = EF Water use [m3 depriv.]; **PM** = EF Particulate matter [disease inc.]; **IR** = EF Ionising radiation [kBq U-235 eq]; **ETP-fw** = EF Ecotoxicity, freshwater [CTUe]; **HTP-c** = EF Human toxicity, cancer [CTUh]; **HTP-nc** = EF Human toxicity, non-cancer [CTUh]; **SQP** = EF Land use [Pt]; **PERE** = Use of renewable primary energy excluding renewable primary energy resources used as raw materials [MJ]; **PERM** = Use of renewable primary energy resources used as raw materials [MJ]; **PERT** = Total use of renewable primary energy resources [MJ]; **PENRE** = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials [MJ]; **PENRM** = Use of non-renewable primary energy resources used as raw materials [MJ]; **PENRT** = Total use of non-renewable primary energy resources [MJ]; **PET** = Total energy [MJ]; **SM** = Use of secondary material [kg]; **RSF** = Use of renewable secondary fuels [MJ]; **NRSF** = Use of non-renewable secondary fuels [MJ]; **FW** = Use of net fresh water [m3]; **HWD** = Hazardous waste disposed [kg]; **NHWD** = Non-hazardous waste disposed [kg]; **RWD** = Radioactive waste disposed [kg]; **CRU** = Components for re-use [kg]; **MFR** = Materials for recycling [kg]; **MER** = Materials for energy recovery [kg]; **EE** = Exported energy [MJ]; **EET** = Exported energy thermic [MJ]; **EEE** = Exported energy electric [MJ]

Statement of Confidentiality

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.22E+0	2.08E-2	9.08E-2	1.34E+0	1.62E-2	6.40E-1	7.73E-3	-7.55E-1	1.24E+0
GWP-f	kg CO2 eq	1.32E+0	2.08E-2	7.77E-2	1.42E+0	1.62E-2	5.18E-1	7.73E-3	-7.97E-1	1.16E+0
GWP-b	kg CO2 eq	-9.78E-2	1.26E-5	6.56E-3	-9.12E-2	9.83E-6	1.22E-1	6.77E-6	4.29E-2	7.40E-2
GWP-luluc	kg CO2 eq	6.53E-4	7.37E-6	6.56E-3	7.22E-3	5.73E-6	9.13E-5	1.30E-7	-5.10E-4	6.81E-3
ODP	kg CFC11 eq	3.99E-8	4.80E-9	7.80E-9	5.25E-8	3.73E-9	1.25E-8	1.94E-10	-3.47E-8	3.42E-8
AP	mol H+ eq	4.87E-3	1.19E-4	3.13E-4	5.30E-3	9.22E-5	5.23E-4	4.63E-6	-2.40E-3	3.52E-3
EP-fw	kg P eq	2.27E-5	1.71E-7	1.21E-6	2.40E-5	1.33E-7	2.65E-6	5.99E-9	-1.28E-5	1.40E-5
EP-m	kg N eq	8.59E-4	4.24E-5	5.29E-5	9.54E-4	3.30E-5	1.55E-4	3.21E-6	-4.46E-4	6.99E-4
EP-T	mol N eq	9.55E-3	4.67E-4	5.95E-4	1.06E-2	3.63E-4	1.70E-3	1.88E-5	-4.98E-3	7.71E-3
POCP	kg NMVOC eq	4.25E-3	1.34E-4	1.85E-4	4.57E-3	1.04E-4	5.35E-4	7.05E-6	-2.14E-3	3.07E-3
ADP-mm	kg Sb eq	3.70E-5	5.38E-7	1.89E-6	3.94E-5	4.19E-7	2.05E-6	4.64E-9	-6.10E-6	3.58E-5
ADP-f	MJ	4.59E+1	3.19E-1	1.02E+0	4.73E+1	2.48E-1	1.61E+0	1.42E-2	-2.43E+1	2.48E+1
WDP	m3 depriv.	9.03E-1	9.80E-4	3.62E-1	1.27E+0	7.62E-4	3.15E-2	6.49E-5	-4.74E-1	8.24E-1
PM	disease inc.	4.64E-8	1.88E-9	3.14E-9	5.15E-8	1.46E-9	8.48E-9	9.74E-11	-2.36E-8	3.79E-8
IR	kBq U-235 eq	2.90E-2	1.40E-3	9.54E-4	3.14E-2	1.09E-3	4.92E-3	6.59E-5	-1.45E-2	2.29E-2
ETP-fw	CTUe	1.32E+1	2.59E-1	1.61E+0	1.50E+1	2.02E-1	1.92E+0	1.24E-2	-6.77E+0	1.04E+1
HTP-c	CTUh	3.64E-10	9.23E-12	8.60E-11	4.59E-10	7.18E-12	2.16E-10	3.42E-13	-1.88E-10	4.94E-10
HTP-nc	CTUh	9.16E-9	3.09E-10	1.78E-9	1.12E-8	2.40E-10	2.72E-9	7.74E-12	-4.73E-9	9.49E-9
SQP	Pt	1.22E+1	2.73E-1	1.86E-1	1.27E+1	2.13E-1	1.27E+0	3.64E-2	-1.60E+1	-1.83E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.30E+0	4.58E-3	3.54E+0	5.84E+0	3.56E-3	7.85E-2	5.55E-4	-2.85E+0	3.07E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.30E+0	4.58E-3	3.54E+0	5.84E+0	3.56E-3	7.85E-2	5.55E-4	-2.85E+0	3.07E+0
PENRE	MJ	4.93E+1	3.39E-1	1.12E+0	5.08E+1	2.64E-1	1.72E+0	1.50E-2	-2.62E+1	2.65E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.93E+1	3.39E-1	1.12E+0	5.08E+1	2.64E-1	1.72E+0	1.50E-2	-2.62E+1	2.65E+1
PET	MJ	5.16E+1	3.44E-1	4.65E+0	5.66E+1	2.67E-1	1.79E+0	1.56E-2	-2.91E+1	2.96E+1
SM	kg	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0
FW	m3	1.42E-2	3.62E-5	8.59E-3	2.28E-2	2.81E-5	9.83E-4	1.75E-5	-7.90E-3	1.59E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.37E-6	8.17E-7	9.94E-7	9.18E-6	6.35E-7	2.69E-6	1.70E-8	-6.91E-6	5.61E-6
NHWD	kg	6.30E-2	1.98E-2	9.68E-3	9.25E-2	1.54E-2	7.96E-2	6.25E-2	-2.58E-2	2.24E-1
RWD	kg	2.79E-5	2.17E-6	1.06E-6	3.11E-5	1.69E-6	6.27E-6	9.26E-8	-1.35E-5	2.56E-5
CRU	kg	0	0	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	0	0	0	0
MER	kg	0	0	0	0	0	0	0	0	0
EE	MJ	0	0	0	0	0	0	0	0	0
EET	MJ	0	0	0	0	0	0	0	0	0
EEE	MJ	0	0	0	0	0	0	0	0	0



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777